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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/653,196

08/31/2000

Charles R. Cash

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11/04/2005

PAUL W. MARTIN
NCR CORPORATION, LAW DEPT.
1700 S. PATTERSON BLVD.
DAYTON, OH 45479-0001

EXAMINER

STEVENS, THOMAS H

ART UNIT

PAPER NUMBER

2123

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/653,196

Applicant(s)

CASH ET AL.

Examiner

Thomas H. Stevens

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-18 and 20-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,7,8 and 20-31 is/are rejected.
- 7) ☒ Claim(s) 3-6 and 9-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1,3-18 and 20-32 were previously rejected.
2. Claims 2 and 19 were previously cancelled.
3. Claims 1,3-18 and 20-32 were sent to the Board of Appeals.
4. Claim 32 was dismissed by the Board of Appeals.
5. Claims 1,7,8,20-31 are rejected.
6. Claims 3, 4-6,9-18 are objected.

NEW GROUNDS OF REJECTION

7. Examiner acknowledges the Board of Patent Appeal and Interferences' decision 9/29/05.

Based upon direction given to the examiner in the decision:

Rather than entering new grounds of rejection against at least broadest claim 1 under provisions of 37 CFR § 41.50(B) (September 13, 2004), we remand the application so that the examiner may reconsider the prior art to be applied against any or all of the claims in view of our determination that the specification figures cannot serve as prior art as to applicants.

However, the search discovered prior art anticipating some of the limitations.

PROSECUTION IS HEREBY REOPENED. A new ground of rejection and reasons for allowance are set forth below.

Claim Interpretation

Office personnel are to give claims their "**broadest reasonable interpretation**" in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See *also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow") The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process. The examiner interprets the limitation of "selecting from a data input dictionary" as inherent that as the system is established variables that would be selected for proper incorporation into the simulation program (claim 1).

Allowable Subject Matter

8. Claims 3, 4-6, 9-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is an examiner's statement of reasons for allowance: Nelson (U.S. Patent 5,390,107) and Madigan-E et al., ("Simulation Success Stories: Business Process Reengineering" (1997)), discloses a method of quantitatively evaluating alternatives to check-out operations using simulation model, comprising: selecting from a data input dictionary parameters describing a first check-out operations; inputting parameter values for the selected parameters describing the first checkout operations into the simulation model; model transforming the first check-out operations parameters into check-out performance results; and outputting the results from the simulation model. None of these reference taken either alone or in combination teach the following limitations:

(claim 3) "wherein the first checkout operations includes one of the transaction process at two front check stands, a transaction process at two back-to-back check stands and a transaction process at two front facing check stands for fast-track customers"

(claim 4) "the method of claim 1, wherein the first check-out operations include check stand designs, transaction procedures and lane configurations"

(claim 5) " the method of claim 1, wherein the transformation step is performed in either an unlimited arrival mode or a limited arrival mode"

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(claim 6) "the method of claim 1, wherein the simulation model simulates two lane models using check-out operations parameters describing the following events: pre-itemization, itemization, finalization, bagging and intervention"

(claim 9) "the method of claim 1, wherein the first check-out operations parameters comprise a configuration category, a customer demand category, a schedule category, a transaction category, a transaction itemization category, a transaction finalization category, a transaction bagging category, a transaction intervention category, and a model parameters category"

While neither of separately these references disclose the previous limitations in combination with the previous elements and features of the claimed invention. For these reasons the applicants' invention defines over the prior art of record.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1,7,8,20-31 are rejected under 35 U.S.C. 102(b) as being disclosed by Nelson et al. (U.S. Patent 5,390,107) (hereafter Nelson). Nelson discloses a check-out (column 4, lines 7-45) lane (column 4, lines 7-45) alert system and method is a live,

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computer base, in-store system that integrates real time shopper traffic data (column 1, lines 64-66) with computerized statistical analysis to generate accurate short term forecast of shopper traffic at the check-out (column 4, lines 7-45) lanes (column 4, lines 7-45) of the store (abstract).

Claim 1. A method of quantitatively evaluating alternatives to check-out (column 4, lines 7-45) operations using simulation (column 2, lines 29-40) model comprising: selecting from a data input dictionary parameters (pre-selected categories: column 3, lines 39-45; also see Claim Interpretation "data input dictionary") describing a first check-out (column 4, lines 7-45) operations; inputting parameter values for the selected parameters (pre-selected categories: column 3, lines 39-45) describing the first check-out (column 4, lines 7-45) operations into the simulation (column 2, lines 29-40) model; model transforming the first check-out (column 4, lines 7-45) operation parameters (pre-selected categories: column 3, lines 39-45) into check-out (column 4, lines 7-45) performance results; and outputting the results from the simulation (column 2, lines 29-40) model.

Claim 7. The method of claim 1, wherein the first check-out (column 4, lines 7-45) operations represents front-end operations of a check-out (column 4, lines 7-45) process.

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Claim 8. The method of claim 7, wherein the front-end operations has labor including cashiers, baggers, super-helpers and overflow resources (encompasses all labor: column 6, lines 40-42).

Claim 20. The method of claim 1, wherein the data input dictionary comprises at least one allowable range of parameter values, and wherein the inputting step comprises inputting a parameter value within the allowed range (column 3, lines 30-42).

Claim 21. The method of claim 1, comprising one of outputting a report and displaying (column 4, lines 40-45) an animation of the results of the simulation (column 2, lines 29-40).

Claim 22. The method of claim 1, further comprising: repeating selecting from a data input diction parameters (pre-selected categories=defined or selected parameters: column 3, lines 39-45) describing a second check-out (column 4, lines 7-45) operations; inputting parameter values for the selected parameters (pre-selected categories=defined or selected parameters: column 3, lines 39-45) describing the second check-out (column 4, lines 7-45) operations into the simulation (column 2, lines 29-40) model; transforming the second check out operations parameters (pre-selected categories: column 3, lines 39-45) into alternative check-out (column 4, lines 7-45) performance results; and outputting the alternative results from the simulation (column 2, lines 29-40) model .

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Claim 23. The method of claim 1, wherein the first check-out (column 4, lines 7-45) operations comprise a plurality of resource types, and wherein the results of said outputting step includes performance measures for each type of resource (column 4, lines 40-45).

Claim 24. The method of claim 23, wherein the first check-out (column 4, lines 7-45) operations comprise a front-end model and wherein the output results include one of: all measures; baggers; cashiers; regular lane (column 4, lines 7-45); fast-track lanes (column 4, lines 7-45); self-service lane (column 4, lines 7-45), self service convertible to cashier operated lane (column 4, lines 7-45), overall front-end; super-helpers; and express lanes (column 4, lines 7-45).

Claim 25. The method of claim 23, wherein the first check-out (column 4, lines 7-45) operations comprise a two lane (column 4, lines 7-45) model and wherein the output results include one of: all measures; customer; cashier; lane (column 4, lines 7-45); and bagger.

Claim 26. The method of claim 23, wherein the performance measures include an *average, standard error, a minimum and a maximum value for each performance measurement measure (patentable weight question; nonetheless typical parameters of statistics: column 3, line 60).*

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Claim 27. A method of predicting, with a simulation (column 2, lines 29-40) model programmed to accept parameters (pre-selected categories=defined or selected parameters: column 3, lines 39-45) within a predetermined range, performance characteristics of a prospective check-out (column 4, lines 7-45) system for use in planning and designing a check-out (column 4, lines 7-45) system comprising: selecting a check-out (column 4, lines 7-45) configuration; determining parameters (pre-selected categories=defined or selected parameters: column 3, lines 39-45) within the predetermined range that describe the check out configuration; inputting the parameters (pre-selected categories: column 3, lines 39-45) describing the check-out (column 4, lines 7-45) configuration into the simulation (column 2, lines 29-40) model; demand; model; determining parameters (pre-selected categories: column 3, lines 39-45) within the predetermined range that describe customer inputting the parameters (pre-selected categories: column 3, lines 39-45) describing the customer demand into the simulation (column 2, lines 29-40) transforming the customer demand parameters (pre-selected categories: column 3, lines 39-45) and the check-out (column 4, lines 7-45) configuration parameters (pre-selected categories: column 3, lines 39-45) into check-out (column 4, lines 7-45) configuration performance; and outputting information regarding the check-out (column 4, lines 7-45) configuration performance from the simulation (column 2, lines 29-40) model .

Claim 28. The method of claim 27, wherein the check-out (column 4, lines 7-45) configuration comprises a plurality of check stands, and wherein the step of determining

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parameters (pre-selected categories=defined or selected parameters: column 3, lines 39-45) describing the check-out (column 4, lines 7-45) configuration comprises the step of: determining for each of the plurality of check stands, at least one parameter that describes the check stand, and wherein the step of inputting the parameters (pre-selected categories=defined or selected parameters: column 3, lines 39-45) describing the check-out (column 4, lines 7-45) configuration into the simulation (column 2, lines 29-40) model comprises the step of inputting the at least one parameter that describes the check stand for each of the plurality of check stands, and wherein the step of transforming comprises the step of: transforming the customer demand parameters (pre-selected categories: column 3, lines 39-45) and the check-out (column 4, lines 7-45) configuration parameters (pre-selected categories: column 3, lines 39-45) into check stand performance for each of the plurality of check stands, and wherein the step of outputting information comprises the step of: outputting information regarding the check-out (column 4, lines 7-45) configuration performance for each of the plurality of check stands, such that a comparison of the relative performance of each of the plurality of check stands is facilitated (column 4, lines 7-29; column 3, lines 55-64).

Claim 29. The method of claim 28, wherein each of the plurality of check stands comprises a check stand of a different type, and wherein the step of outputting information comprises the step of: outputting information regarding the check-out (column 4, lines 7-45) configuration performance for each type of the plurality of check stands (column 4, lines 11-16), such that a comparison of the relative performance of

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each type of the plurality of check stands is facilitated (column 4, lines 7-29; column 3, lines 55-64).

Claim 30. The method of claim 27, wherein the check-out (column 4, lines 7-45) configuration comprises a plurality of labor types, and wherein the step of determining parameters (pre-selected categories=defined or selected parameters: column 3, lines 39-45) describing the check-out (column 4, lines 7-45) configuration comprises the step of: determining for each of the plurality of labor types, at least one parameter that describes the labor type, and wherein the step of inputting the parameters (pre-selected categories=defined or selected parameters: column 3, lines 39-45) describing the check-out (column 4, lines 7-45) configuration into the simulation (column 2, lines 29-40) model comprises the step of: inputting the at least one parameter that describes the labor type for each of the plurality of labor types, and wherein the step of transforming comprises the step of: transforming the customer demand parameters (pre-selected categories: column 3, lines 39-45) and the check-out (column 4, lines 7-45) configuration parameters (pre-selected categories: column 3, lines 39-45) into labor type performance for each of the plurality of labor types, and wherein the step of outputting information comprises the step of: outputting information regarding the check-out (column 4, lines 7-45) configuration performance for each of the plurality of labor types, such that a comparison of the relative performance of each of the plurality of labor types is facilitated (encompassing all labor: column 3, lines 55-64).

Claim 31. The method of claim 30, wherein the plurality of labor types comprise cashiers, baggers and super-helpers, and wherein the step of outputting information comprises the step of: outputting information regarding the check-out (column 4, lines 7-45) configuration performance for cashiers, baggers and super-helpers, such that a comparison of the relative performance of the cashiers, baggers and super-helpers is facilitated (column 3, lines 55-64).

Citation of Relevant Prior Art

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- US Patent 6,629,081
- US Patent 5,978,772
- Hogg et al., "GERTS Qr: A Model for Multi-Resource Constrained Queueing System. I. Concepts, Notation and Examples". 1975 Univ of Illinois Urbana-Champaign. pg.89-99.

Correspondence Information

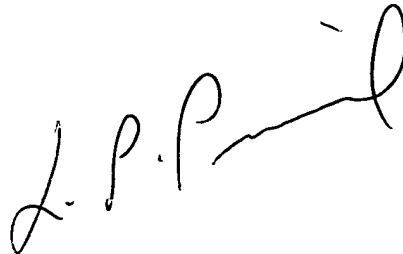
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (8:00 am- 4:30 pm EST).

If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Leo Picard ((571) 272-3749). The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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October 19, 2005

A handwritten signature in black ink, appearing to read 'L. Picard', with a stylized flourish at the end.

TS

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100